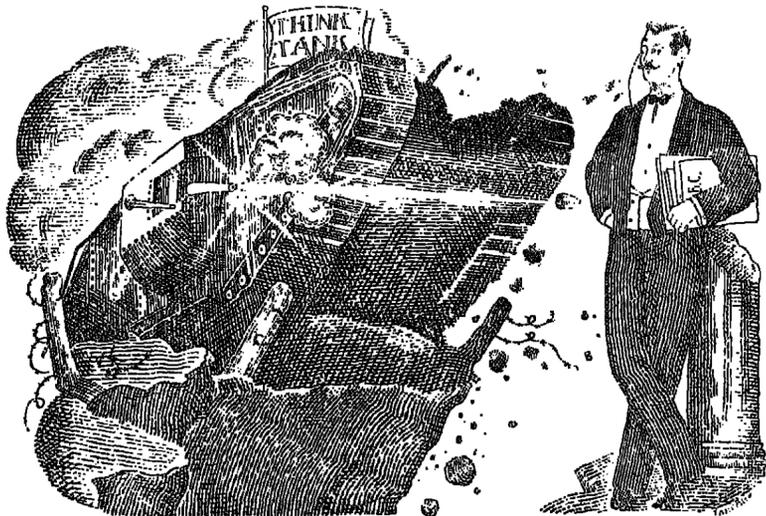


Think tank advice gets return fire



by Sue Reid

The Central Policy Review Staff's controversial call for the complete abolition of the British Council and the smaller agencies concerned with educational work abroad has met with fierce opposition.

The British Council, which is already preparing a wide-ranging document for submission to the Government, has rejected both the central set of options in the report and the Inter-University Council, which could also face abolition, has alleged the think-tank team acted as a "bulldozer".

Only the Central Bureau for Educational Visits and Exchanges is less harsh in its criticism. It maintained this week that its future would be secure even if the more radical proposals of the report, which call for an expanded Department of Education and Science "overseas capability", were adopted. It also welcomed the second set of options which would, if accepted, allow it to remain as a free-standing organization.

But Sir John Llewellyn, director general of the British Council, has been outspokenly critical of the report's proposals. If they were accepted it would lead to a loss of

public commitment to the work of educational and cultural relations overseas. "The abolition of the council would be a disaster. We reject both the main options", he said.

The council also opposed the suggestion that the DES should take over responsibility for educational exports, a field that the council had moved into alone and built up. "A statement from the council this week condemned the report's proposal for new machinery to replace the present machinery for overseas representation which had been shown to work well. It was equally opposed to the less controversial option which would lead to the retention of the council in Britain but its abolition overseas.

The Civil Service unions within the council added this week: "Our reaction is that the review team have totally misconstrued the place and the importance of cultural, educational and scientific cooperation in Britain's role in the modern world. We believe that Government finance at the present level is required to support such cooperation."

It was said the union, impossible to accept the recommendations that would drastically reduce the council's activities and possibly entail its abolition. Some recommendations

did, however, deserve further scrutiny.

Mr R. C. Griffiths, director of the IUC, said that his organization covered the important field of higher education aid and cooperation between Britain and developing countries overseas. It was in fact promoting interest and co-operation within British universities and polytechnics in the field.

"The report is a bulldozer, and like all such machines is a little lacking in discrimination in dealing with the small and more delicate elements associated with a large structure, admittedly in need of modernization. More importantly, it wholly overlooks the IUC's present central role in the identification, administration and coordination of educational technical co-operation and capital assistance at university level in key developing countries.

The IUC met the report's critics in a small, economical, effective and highly regarded overseas. It could, he conceded, work effectively with the second set of options which proposed the staffing of Government missions overseas outside the British Council. It would also welcome the greater involvement of the DES in overseas educational cooperation.

Leader, page 16

Main recommendations of the Berrill report

The think-tank report recommended:

- The abolition of the British Council and the scrapping of the smaller agencies including the Inter-University Council, the Central Bureau for Educational Visits and Exchanges and the Technical, Education and Training Organisation for Overseas Countries. Instead their work should be transferred to a new recruitment and placement agency in the United Kingdom.
- The establishment of an "overseas capability" within the Department of Education and Science, including an educational exports unit

and a transfer of the remaining cultural work to the Arts Council.

- The transfer of responsibility for educational aid administration overseas to the Ministry of Overseas Development and of educational and cultural work overseas to the diplomatic service with resident DES and ODM experts playing a role where necessary.
- The review team makes a distinction that it favours these particular options but also puts forward a second less radical set of proposals suggesting the retention of a separate British Council in Britain incorporating the smaller agencies apart from the Central Bureau. Council representations overseas

should be incorporated into diplomatic posts. It claims that:

- The provision and administration of educational aid should be given high priority in developing countries but educational cooperation and cultural manifestations should be centred on the Soviet Bloc countries.
- Expenditure in non-Commonwealth developed countries should be substantially reduced. If the council was maintained staff should be withdrawn altogether from English-speaking developed countries and the smaller European countries. In other developed countries British-appointed staff should be reduced to one person.

NEXT WEEK

- Bernard Holloway on graduate recruitment
- Terry Keefe on education in prisons
- Grenville Wall reviews Mary Warnock's new book, Schools of Thought
- Women: the losers in teacher training cut-backs
- OU course planning

Expulsion ruling overturned

An appeals committee at Essex University has rejected the recommendation of the university's disciplinary committee that five students be expelled for their part in occupations. Instead they have been given a variety of penalties, including exclusion and fines up to £152.

The five are among some 70 students who were disciplined for their involvement in occupations earlier this year over increased

tuition fees. Ten others were suspended, three threatened with expulsion if they caused further trouble and the rest charged fines totalling about £2,000.

The appeals committee, which comprises two members of staff and a student, has now heard about half of the appeals against the recommendations of the disciplinary committee. It is expected to announce its decisions on the rest of the students in September.

Staff not students are keener on modular courses, report says

by Judith Judd

Staff are more enthusiastic than students about modular courses according to Dr W. Boardman, a lecturer at Hatfield Polytechnic who is on secondment to the Department of Education and Science.

Dr Boardman's view is included in a collection of papers, entitled *Phonics from the Ashes? Prospects for Teacher Education* published by Croomie Lodge, the further education staff college.

He says: "In most cases staff were very enthusiastic about modular courses and felt there was tremendous flexibility in the choice of topics, but in practice this was in connexion with staff's own particular interest and the ability slightly to modify a scheme and introduce new ideas as separate modules."

In this way staff could change their teaching pattern from one session to the next without disturbing the whole course structure. Students, however, saw things differently. "The flexibility was nowhere near as real, in many

cases much of the choice given for individual modules and students are familiar with the outset and are able to follow a defined route or leave open for alternative routes. The change comes substantially reduced in the stages of many courses."

Dr Boardman's paper also notes student reactions to the increasing numbers of schemes have been mixed. On the broader subject of choice and the ability to restrict their own programme but not wanted alternatives and content with the program offered.

The paper says that the students tend to contrast a programme along traditional lines, even if it is not always obvious many students who find a traditional selection of modular courses, except those who are making an "informed" decision.

Oxford results show slight improvement on last year

Academic performance at Oxford, judged by results in the recent final honour schools examinations, has gone up slightly over last year. There were 1.31 per cent firsts against 1.24 per cent last year, and 7.71 per cent second, compared with 7.5 per cent last year.

Trinity College has regained the position it achieved in 1975 of being first both in the total number of firsts and in the Norington Table, which is based on a points system.

Magdalen College, which last year had the greatest number of firsts, has dropped to sixth with 16, the total achieved also by St Edmund Hall and Somerville College. In between come Balliol

(20), New (18), St Catherine's (16) and Leitch (17).

The results table gives the number of candidates for each college who obtained firsts and second classes in the final year of the statutory number of students before taking their examinations. Pass figures are not included, but percentage table gives percentages based on the percentages achieved and of final seconds.

The third table gives points based on the system devised by Sir Arthur Norington, the president of Trinity College last year, for a first, two for a second and one for a third.

Results Table	I	II	III	Total
Balliol	20	61	11	91
Brasenose	12	59	16	87
Christ Church	14	49	19	102
Corpus Christi	9	32	5	46
Exeter	13	58	11	82
Hertford	8	54	12	78
Jesus	9	43	21	73
Keeble	17	78	11	106
Lincoln	6	49	12	67
Magdalen	16	83	6	105
Merton	9	43	21	73
New	18	64	16	98
Oriel	7	54	11	74
Pembroke	9	68	13	90
Queens	4	44	11	59
St Catherine's	17	44	18	99
St Edmund Hall	16	87	15	118
St John's	14	68	8	90
St Peter's	9	43	21	73
Trinity	3	44	8	55
University	21	77	5	101
Wadham	8	63	17	88
Worcester	15	54	13	82
Total:	279	1421	276	1976

Women's Colleges	I	II	III	Total
Lady Margaret	11	78	9	98
Hall	11	78	9	98
St Anne's	11	78	9	98
St Hilda's	11	78	9	98
Somerville	11	78	9	98
Average	11	78	9	98
All colleges	11	78	9	98
Notes: equal placements				

Percentages Table	I	II	III	Total
Balliol	21.3	64.9	13.8	11
Brasenose	13.8	67.8	18.4	13
Christ Church	13.7	61.8	24.5	9
Corpus Christi	19.6	69.5	10.9	9
Exeter	15.9	70.7	13.4	10
Hertford	10.3	74.4	15.3	19
Jesus	12.3	65.5	22.2	12
Keeble	16.0	73.6	10.4	9
Lincoln	9.0	73.1	17.9	24
Magdalen	15.2	75.6	9.2	9
Merton	12.4	65.3	22.3	18
New	18.4	65.3	16.3	5
Oriel	9.5	73.0	17.5	21
Pembroke	10.0	75.6	14.4	20
Queens	5.1	78.5	16.4	20
St Catherine's	17.2	64.6	18.2	6
St Edmund Hall	13.6	73.7	12.7	15
St John's	15.6	75.6	8.8	6
St Peter's	12.5	59.7	27.8	16
Trinity	5.5	80.0	14.5	26
University	20.0	74.7	4.3	2
Wadham	9.1	74.6	16.3	23
Worcester	18.3	67.5	14.1	8
Average	13.9	72.0	14.1	

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DES allows Race Act provisions to be circumvented

Universities, polytechnics and colleges may now charge higher fees to overseas students and restrict their student numbers to 1976-77 levels without fear of contravening the Race Relations Act.

The section provisions of the Act which came into effect on September 1, make it unlawful to discriminate on admissions and the provision of facilities in both public and private sectors.

But under a circular (8/77) published last week by the Department of Education and Science institutions will be able to comply with the new section this year that overseas student numbers for 1978-79 be kept at about 74,000.

They may also charge higher fees, which come into effect in October, and in the case of polytechnics and colleges, more for homes.

The circular also allows local education authorities to continue operating a three-year residential qualification when considering applications from overseas students for discretionary awards under the Education Act, 1962.

DES, Elizabeth House, York Road, London SE1 1PL.

Pressure grows for NUS to debate Palestine issue

by Judith Judd

Supporters of the Palestinian cause have arranged a meeting which aims to ensure that the issue is discussed at the next National Union of Students conference in December.

The meeting, which will be held on September 10-11, is being organized by the General Union of Palestinian Students and the students' union of the University College of North Wales, Bangor, where it will be held.

The Palestinian students' leader in this country, Mr Mohammad Abu-Koosh, is a student at Bangor.

The conference is the latest move in a campaign to get the issue of Palestine discussed in students' unions throughout the country. At present most unions have passed motions condemning Zionism as racism and in two places, York and Salford, the Jewish settlement was banned from the union. The ban at York was later revoked.

Bangor has no Jewish society. In a statement this week Bangor students' union said: "Bangor has for a long time supported the national rights of the Palestinians. NUS is the only student union in Europe with no policy on Palestine or the Middle East. We believe that now is the time to raise the

issue within the student and Labour movements."

Mr Moshe Forman, chairman of the Union of Jewish Students, said the issue would not be represented next year.

"We are concerned about the September conference because we feel it may create a lot of bad feeling," the Jewish students' union is preparing a motion for the NUS conference which will support the principle of national self-determination for all people in Palestine and of having two states in the area.

The Palestinian students' union is expected to back a motion saying the Zionists are racists. Mr Forman said: "We feel that if such a motion were passed it would legitimize the activities of those who went to ban Jewish societies, since the Zionists have a policy of 'no platform' for racist speakers."

Mr Trevor Phillips, secretary of the NUS, said: "Ideally we would like to see the question of Palestine discussed at the next conference, but this will depend on the priority it is given by members."

The NUS has always supported the right of Jewish societies to union facilities.

No work unless pay is settled
university teachers warn

by Frances Gibb

University lecturers may take the unprecedented action of refusing to teach new students or take part in admission procedures in support of their pay claim.

Officers of the Glasgow Association of University Teachers' branch have called for an emergency meeting of the AUT council to discuss progress on pay negotiations and what measures should be taken if their demands are not met.

With the agreement of their branch they intend to put forward a motion calling on members to take no part in admission procedures or teaching of new entrants for the session 1977/78 until the Government honours its pledge to rectify the long-standing anomaly in salaries. The AUT has arranged over recent months for committees at every local association to be in charge in the event of industrial action.

Other measures being considered are refusal to mark examination papers, mass applications for Civil Service jobs, withdrawal from Government committees and from all consultancy work in Civil Service departments, and refusal to operate university computers often used by Government or industry projects.

An emergency meeting of the AUT council will be called if Glasgow obtains the support of other committee representatives. Glasgow itself has supplied seven.

Dr Ronald Emanuel, chairman of the branch, said the motion had been drafted from a general sense of frustration and the feeling that no movement was being made to rectify the anomaly. "The AUT needs to do something," he said. "Over two years we have written to MPs and Government all of which has brought nothing. It is time to try a different approach does not cut any ice."

He thought the action proposed would gain support, but even if it had the support of only 50 per cent of the membership, that was sufficient to produce chaos and force universities to hold up admissions.

"Our reasoning is that since we are only being paid for teaching, we will only teach that proportion."



PAIGE

Professor A. M. Pritchard, chairman of the AUT contingency planning working party in charge of tactics, said that Glasgow was not normally particularly bullish and the motion was an indication of the strength of feeling generally over the salary claim.

Mr Laurie Sapper, general secretary of the AUT, said the association had asked the Government through the Universities Authorities Panel (UAP) for the anomaly to be rectified "without prejudice to the normal annual increase". They were still awaiting a reply and he did not expect one until at least the end of August or the beginning of September.

The AUT executive had undertaken, however, that any kind of offer would be discussed by an emergency council meeting which the executive would call at short notice.

He said the anomaly would mean an increase of 12 to 18 per cent on lecturers' current salaries at present levels. They would receive their annual increases on top of that. The Government had recognized the AUT had an anomaly and had agreed that special cases could be dealt with in stages, he said. "The AUT assumes—with

good reason—that university teachers may be included."

On the question of whether the Government would give the universities more money for the pay settlement, Mr Sapper said the issue was confused because the universities' cash limit year ran from August to August, and the Government's from April to April. "The universities' year runs into the next national year and the cash limits for that year have not yet been fixed."

Laurie Boyle, chairman of the Committee of Vice-Chancellors and Principals, estimated recently that for every one per cent that universities' salaries rose above the five per cent increase allowed for in the 1977-78 grant, universities would be short by some £3.5m.

If salaries rose by 10 per cent, which was the limit indicated by the Chancellor, then universities would be over £15m short. But they were already between two and four per cent short on what was needed to maintain facilities at this year's levels, he said.

A 10 per cent increase in salaries would amount to an extra cut of 2.5 per cent, and would mean universities were short by at least five per cent of what they needed, and in many cases, over six per cent.

Since then the procedures for admission to the course have been revised, with CCEISW's approval, a special block of places has been allocated to the education welfare departments of the three boroughs and there has been a change in the direction of the department of social work. Still Mr Vyas's application has been deemed unworkable.

Staff on the course who had been sent to the National Association of Teachers in Further and Higher Education. On their behalf, a regional official of the union said this week he was hopeful that meetings within the polytechnic now taking place would lead to a satisfactory outcome.

So far none of the staff has actually received notice of dismissal and legal action. The borough council's rules for training courses are approved by the Privy Council and its stand is taken on the following paragraph: "No person shall be admitted to a recognized course unless (inter alia) he is judged by the university or other establishment offering the course in accordance with procedures satisfactory to the council to be suitable for education and training in special work."

Local councils threaten poly on admission

by David Walker

The boroughs supporting the North East London Polytechnic have demanded that unless one of their employees is admitted to a training course the staff in the polytechnic social work department running it should be sacked.

At a recent meeting the joint committee of the London boroughs of Newham, Waltham Forest and Haringey resolved that no students should be admitted to the course from next month and requesting the poly

RESEARCH

Computerized pig may bring home the bacon

by Clive Cookson
science correspondent

As meat production comes under increasing pressure as a result of the world's agricultural resources, livestock farmers are paying more attention to cutting out unnecessary waste in the conversion of animal feedstuffs into edible flesh.

The costs and complexities of empirical feeding trials with real animals are too great for them to be a feasible means of predicting the best yield of any breed under any conditions. Therefore scientists at Edinburgh University's agriculture department are developing an alternative approach: the computerized pig.

For five years Dr Colin Whittemore, a biologist, and Mr Roy Fawcett, a mathematical economist, have been building up a computer model of the pig—chosen because it is normally reared under closely controlled conditions than sheep or cattle—from the results of basic research in animal physiology and biochemistry. It predicts, deductively rather than empirically, the amount and rate of gain in weight from pigs by reference to the pattern and quantity of feedstuffs used.

The model incorporates research findings, published in the scientific literature, from laboratories round the world. Some of the material related directly to pigs, and some was derived from information about other animals—for example, protein turnover in rats.

The growth patterns predicted by the computerized pig have been compared with the results of feeding trials with real pigs, and comparability has generally been excellent. Occasionally there are discrepancies, but it is often discovered that the real life experiment was afflicted: the animals might have been suffering from an undetected disease, or instance, or the temperature control in their living quarters faulty.

Nevertheless, the Edinburgh team are still seeking more fundamental information about the way animals grow, to add to the model. They are particularly keen to know more about pigs' biological limits, such as the maximum quantity of lean meat they can add per day, and about their amino acid and energy metabolism. Such basic research is needed far more than the results of further feeding trials, Dr Whittemore says.

The computerized pig works by asking its operator a series of questions. A typical sequence might be: How much food are you giving me today? What is its protein and

energy concentration? What is the quality of the protein? Am I a male, a female, or castrated? What strain of pig am I?

What temperature are my surroundings? Am I living in an indoor or a draughty pig house? What sort of floor am I lying on? How heavy am I when I start growing? When am I to be slaughtered?

Its (or she) then grows until he reaches his estimated weight, which may be a particular date or a given weight. Then he hands the operator a print-out showing his growth pattern, how he used his food to keep warm and to grow fat and lean meat. He reveals his body composition and says how appealing his carcass will be to the butcher, from the point of view of lean meat and fat cover.

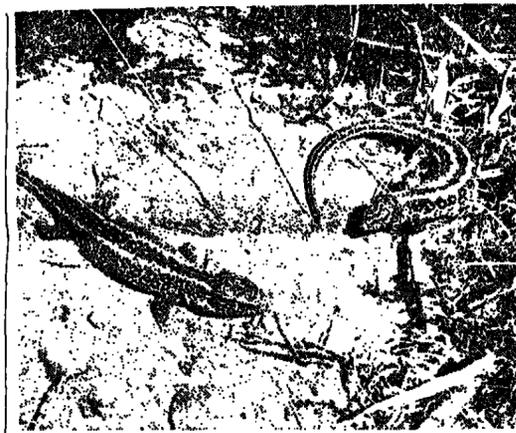
A series of "feeding trials" with the computer, carried out over a couple of hours at a cost of £10, can predict the outcome of an experiment that would take two years and £20,000 to carry out in the flesh.

Indeed, the computer reveals more than the empirical experiment about the vital relationship between foodstuffs and meat yield, because the computerized pig can be "killed" and analysed every day of its life; real animals can be weighed daily of course, but their body composition is uncertain until they are slaughtered.

The project has obvious potential as a practical aid to the agricultural industry. If individual farmers were able to consult the computerized pig about their own particular circumstances, they could adapt their feeding programmes to use foodstuffs with maximum efficiency. Occasionally the model can be used with lean meat for bacon, ham and pork. (The technology needed to link farmer to computer via the telephone already exists.)

Edinburgh University has just appointed a pig development officer, Mr Sandy Wilson, who will explore the commercial possibilities of the computerized pig with a research assistant, Mr Chris Rowland. Within two years he will, it is hoped, be able to tell Dr Whittemore and Mr Fawcett how the model can best be packaged to meet the requirements of the three potential groups of users: farmers, animal feed manufacturers, and the agricultural development and advisory services.

Within three years, Dr Whittemore says, the model should know more about the computerized pig is really on as a commercial system. If so, computerized cattle, sheep, and chickens could be on their way too.



English sand lizards—the male is on the left

Conservation plan to save the vanishing sand lizard

Two of Britain's six native reptile species are in some danger of becoming extinct as a result of increasing human pressure on their few remaining habitats. Concern about their future has led the Natural Environment Research Council to finance a study of their ecology at Southampton University.

Researchers there are already investigating the habitat of the non-toxic sand snake and the food requirements of the beautiful sand lizard. Now NERC has given Southampton herpetologist Dr J. E. Spellerberg a further £14,000 for a third research assistant to look at sand lizard habitats.

This lizard is limited to a dwindling number of isolated populations in southern England and a tiny remnant population in Lancashire. The latter is the subject of a separate investigation, funded by the Natural Conservancy, by Dr Derek Yalden of Manchester University. More than 20 sand lizard colonies in the New Forest have disappeared in the past 20 years, and 1976 was particularly bad because of severe heathland fires during the drought. Dr Spellerberg hopes to discover the minimum area and size of a viable colony and to identify the key environmental factors necessary for its existence. He also wants to establish whether dispersal into small isolated groups, perhaps containing fewer than 50 individuals, is caused by any form of harm from the genetic point of view.

British sand lizards are thought to be a significantly different form from those in the Continent, although scientists are not agreed on the extent of the difference. Indeed, the Lancashire lizards may be a different race from those in the south. Dr Spellerberg thus feels it would be disastrous to try to save the English populations by topping them up with lizards from the Continent where they are by no means common anyway.

The male sand lizard is a spectacular creature in spring: up to 18cm long, with brilliant green scales. He is much more heavily built than the relatively drab common lizard; the difference is like that between one's thumb and little finger.

Sand lizards live in uncultivated wilderness, sand dunes, heathland or scrub. So do smooth snakes, although Dr Spellerberg's research has discredited an old idea that the snakes are a major predator of sand lizards. Snakes prefer small mammals, such as mice, voles and shrews.

The investigation has also shown that smooth snakes exist in greater numbers and more places than had been thought, although Dr Spellerberg still believes that they too are an endangered species because the population is highly fragmented. (When a major habitat in Dorset was burnt last summer, 1,000 smooth snakes are thought to have died.)

One hope is that the sand lizard project will uncover more colonies.

TV drive to aid young jobless

Westward Television at National Extension College, bridge, are joining forces in a search project to help the unemployed.

The Mappowser Service mission has made a £5000 for the research, which aims to cover why young people do not take up job opportunities. Agencies can reach those who are unemployed.

The project is especially aimed at young people who are isolated because of where they live or those with few qualifications.

Subjects for research will be selected through a series of "Just the Job" television programmes to be seen in south-west England from November 7. It is known as young unemployed special time watching television.

The programmes are directed at employers, and it is hoped to increase employment training opportunities.

At the end of each programme will be invited to join the scheme. It will be led by a counselling group, and will be a "job packs" which will be sent to young people who are unemployed. The packs are presented in cartoon form.

Later a counsellor will call about counselling group which will be set up throughout the west.

The aim of these programmes is to ensure that the young unemployed impression of the sort of work available. The counsellor will make a decision to do so, and seek the support of the young people in carrying through the project.

The project is not limited to the role of a counsellor for the young unemployed. It will also act as a means of giving young people into job agencies in a positive way.

The television programme is part of Westward Television's normal output. All the following network is provided by National Extension College.

A team of four people based in Devon will be backed by the staff of the college's Cambridge headquarters. Work on the establishment of the college in the south-west.

Every contact, group activity will be logged for analysis. A report will be made on the value of the project's methods.

Large SSRC grants face curb

by David Walker

The Social Science Research Council is likely to make fewer large-scale grants to researchers in future, and the grants it does make are likely to be concentrated in a smaller number of university departments.

The SSRC Newsletter, published this week, contains the reports of the council's various subject committees, and most of them report that large grants (between £25,000 and £50,000) run into problems. Grants of less than £10,000, according to the economics committee, often produce better results.

The planning committee in economics argues that large grants will have to be restricted to departments with proven experience. The committee would be wise to concentrate its awards more in certain areas, such as energy of research, and departments whose size permits greater diversity, it says.

The reports of the computing, economics, educational research, economic and social history, geography, management and industrial relations, planning, political science, psychology, social anthropology, sociology and social administration and statistics committees are pre-occupied with spending less money on more and more applicants for research grants and postgraduate training.

The solution most of them adopt is to restrict the number of departments to which money for postgraduate students ought to be given. The educational research board, for example, claims that a policy of concentration allows awards to be distributed in a more equitable way. The political science and international relations committee says that future research grant applications asking for smaller amounts of money are more likely to succeed. Some of the committees criticize the conduct of social science research. The planning committee is

quite blunt: "In spite of visits made to departments during which prospective applicants were advised to consult the office before submitting formal proposals, many people failed to do this, and the committee continues to receive badly presented and over-ambitious applications."

It goes on to ask for closer contact between the SSRC and researchers to ensure that they are keeping in the right lines in their work. It suggests holding back the final instalment of research grants until the SSRC is convinced that an adequate report on the research will be made.

All the committees complain about insufficient work for work in their subject; as an example, the economic and social history committee says that a barrier to research in historical demography is the raising of fees by the clergy for the inspection of parish registers. SSRC Newsletter: Committee reports to council. Free from 1 Temple Avenue, London EC4V 0DD.

Fewer part-time training posts for women doctors

by Clive Cookson
science correspondent

The number of part-time training posts for women doctors with family commitments is falling.

Dr Grönlund said, when spending cuts hit the health service three or four years ago and forced regional authorities to reduce part-time posts, compared to 77 in 1975 and 51 in 1976.

The figures are included in a booklet on part-time postgraduate training in medicine, published by the Royal College of Physicians this week.

Regional health authorities cannot establish and fund a part-time registrar or senior registrar post before manpower approval is obtained from the DISS, the college says.

There has often been an inordinate delay in establishing posts, and in some regions a gap of nine months or a year may follow an application before a post is established or refused.

However, Dr Aime Grönlund, secretary of the Medical Women's Federation, said the wait was not really even longer—between one and two years—because so many

committees had to consider each application. Part-time training jobs are created individually to suit the needs of each applicant, under a scheme started in 1969.

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'Time now ripe to set up teaching council'

The time has never been more appropriate for the establishment of a General Teaching Council, according to Mr Frank Harris, lecturer at York University's department of education.

Speaking at a conference on school management at the Wolverhampton Technical Teachers' College, Mr Harris said the council should have much greater power than those originally envisaged in the Weaver Report in 1970.

Mr Harris, the vice-chairman of the National Union of Teachers national advisory committee for university departments and colleges of education, made his remarks in the light of the recent Green Paper Education in Schools. This suggested there was a gap in the current arrangements for the development of the content of teacher education and training.

A general Teaching Council with a majority directly elected by a single transferable vote system, would stop all the squabbles about size of union representation. "Higher education could elect its representatives to cover the training field and the Secretary of State could nominate a small number of persons to cover other interests. This could be a most useful instrument for change and could set the seal on making teaching the really great profession it ought to be."

Mr Harris said that with new patterns of training every teacher would need a proper induction process. He suspected that people in schools would find that some new entrants were better qualified academically but professionally inadequate for the tasks they faced.

Whether they succeeded would depend on the support given to them in their vital probationary year. He supported the view in the Green Paper that the teacher's permanent appointment might be deferred until probation had been satisfactorily completed.

The only category of students to be affected by the change is the 10 per cent, continuing a trend begun in 1970.

Even so, between 1971 and 1975, students under 19 on day release were represented just over 20 per cent of the age group not in full-time education.

One reason for the increase in further education students is the growing number of women students. The number on advanced level courses rose by 28 per cent.

There are now nearly as many women as men on full-time courses, and in the youngest group, aged 16 to 17, there are more girls than boys.

Women are in the majority only on evening and part-time day courses. Among day release and sandwich students, the proportion of women is still less than one in five.

Of 16 and 17-year-olds, 45 per cent were still in full-time education in November 1975, when 754 students crossed the Irish Sea. The number of Northern Ireland students going to universities in the Republic of Ireland fell to 132.



The Queen's visit to the New University of Ulster, Coleraine, last week was completed safely, despite IRA threats that a bomb would go off on the campus. The bomb, of about 2lb, finally exploded at 9.50 on Thursday, five hours after the Queen had left.

It had been placed on the edge of the botanical gardens about 150 yards away from the nearest university building. A last-minute search of the buildings and grounds had failed to find anything.

The Queen, pictured with Dr W. H. Cockeroff, the vice-chancellor, toured the buildings of the university which was founded in 1968 and has 2,700 graduates. She also had lunch there. In the afternoon about 1,500 young people from schools and youth organisations took part in a youth festival in the university grounds.

The climax of the day was an arena display with contributions from the Belfast Girls' Club Union, the pipes and drums of Campbell College and Irish dancing.

Evening classes boom brings student total to nearly 4m

by Judith Judd

The number of students on advanced courses in polytechnics and colleges of further education increased by 12.5 per cent in 1975, according to figures released this week by the Department of Education and Science.

This was double the change in the previous year. However, if the merged former colleges of education are excluded the increase is reduced to 9 per cent.

There were 63,000 more full-time and sandwich students in 1975, 8,500 of these being teacher trainees included for the first time after the merger of 12 former colleges of education with polytechnics.

The total rise in numbers was 237,000, bringing the number enrolled in further education colleges in England and Wales to nearly four million.

More than half this increase is the result of growing numbers attending evening institutes.

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National Academic Awards' first degree courses, which now have a quarter of all advanced students. City and Guilds courses are the most popular among non-advanced students.

Engineering and technology are the most popular subject, but social, administrative and business studies are most popular for advanced courses.

Statistics of Education 1975 Volume 3: Further Education, HMSO, £4.50 net.

The proportion of students on the fourth year of courses leading to the first degree increased during 1975-76, according to the Department of Education and Science's report for 1976. The figure was 18 per cent of the intake three years earlier, compared with nearly 16.5 per cent in 1975.

The report also shows that DipHE courses continued to gain ground. By the end of the year, 70 institutions had received the Secretary of State's approval to offer courses leading to the DipHE.

During the year, a start was made on £40m worth of building work at establishments of further and higher education, including £15m at colleges or departments concerned with teacher training.

The number of teachers on the DES one-year full-time courses for serving teachers was 2,314. The number on part-time courses equivalent to one year was 7,787. Education and Science in 1976. HMSO, £1.50.

A further increase in the number of first-time university students remaining in Northern Ireland is shown in volume 23 of the Northern Ireland education statistics, which has just been published. In 1975-76 the figure reached a record 663. The proportion remaining also increased slightly from 65.6 per cent to 66.2 per cent.

The number of students going to universities in England, Scotland and Wales increased by 42 to 716, but this is still lower than the peak year of 1972-73, when 754 students crossed the Irish Sea. The number of Northern Ireland students going to universities in the Republic of Ireland fell to 132.

Worldwide picture planned of agricultural production

by Frances Gibb

A worldwide input-output table on patterns of agricultural production is the aim of researchers at Bradford University. The investigation, with a £5,428 grant from the Ministry of Overseas Development, is being carried out by Dr John Duxworth, of the social sciences department, and Mr G. R. King, who has been appointed research fellow.

They hope to compile a worldwide table showing each country's agricultural exports, and the destination of those exports including the sector in that country which uses them.

Input-output analysis involves the presentation of a country's production statistics in the form of a matrix showing the flow of goods and services between different sectors of the economy. From this it is possible to see the flow of goods and services between different industries which is finally bought by consumers, investors and the government, or exported.

Such tables are prepared by most

countries, and they appear in a wide variety of forms. On the whole the richer countries produce the more detailed tables.

The university has collected some 400 tables from 100 countries. So the most of the work has involved defining the way the tables are broken down into industries, using the UN's International Standard Industrial Classification (ISIC).

The tables are stored on the university's computer, together with the way they are broken down. The researchers will investigate whether it is possible to break down the agricultural sectors of tables further to show, for instance, grains, other food crops, textile crops, other non-food crops, livestock, forestry, and fishing.

The aim is to identify common patterns in the various tables. For example, whether it is possible to predict how fertilizer requirements will vary as a country's agriculture develops, and what goods and services would be needed by the chemical industry for the extra fertilizer.

Taking the lid off one of nature's dustbins

by Judith Judd

Scientists in the Department of Environmental Sciences at Lancaster University are examining what happens when the lid is taken off one of nature's dustbins.

They are investigating the processes involved when toxic metals, stored beneath estuary floors, are released back into the river. The research is supported by a £9,583 grant from the Natural Environment Research Council over two years.

The metals, originally discharged into the river and sea as industrial and domestic sewage, are carried in suspension in fast moving rivers or tidal currents until they reach more sluggish conditions in estuaries and sink to the bottom.

Dr Simon Aston, director of the project, said: "The concentration of metals can build up over decades in estuary sediments."

Under normal conditions a shifting upper layer on the estuary floor, containing oxygen and living organisms, acts as a seal preventing the escape of metals buried in the sediments beneath.

After heavy storms, however, the combined action of fast flowing flood water and strong tidal currents can wash away large areas of this upper layer exposing, and releasing a whole variety of metals, in the lower sediment back into the water.

These metals are stored in the lower levels in a comparatively harmless sulphide form because the sediment beneath is sealed from oxygen. The Lancaster team will be examining what happens to the metal sulphides when they are released back into the water.

Dr Aston said: "We suspect that the presence of oxygen in the river water will rapidly convert the solid metal sulphides back into soluble metals. Many of these, such as cadmium and lead, are, of course, toxic."

In order to test the theory the scientists will be collecting samples from estuary floors of rivers in the north-west, such as the Lune. They will analyse what happens when the metal sulphides are released into river water under laboratory conditions.

We shall be able to discover the varieties and amounts of metals

in estuary sediments and what their release is significant for water. Dr Aston said.

"If our theories are correct, water authorities will be able to predict what should take place when they should take account of what pollutants are being released into the water. They can reappear in estuaries years later, where they can be assimilated by organisms such as shellfish."

Dr Aston said the investigation will also lead to a better understanding of the environmental release of radioactive materials from power stations.

Mr David Stammers, a research student in the department, is using the results of the project in his investigations on the contamination of river estuaries near Wincoburn, Hampshire, supported by the Ministry of Agriculture, Fisheries and Food's radiobiological unit at Lowestoft.

Storm in a dishwasher

Students at Brighton Polytechnic press to press for a vote of no confidence in Mr Geoffrey Hall, the college's director, following a decision to spend £7,500 on refurbishing his campus house.

The students' union will be asking its members next term to support the motion because they say that the faculty was "deplorable" at a time of education spending cuts.

They allege that the renovation work included the complete redecoration and refurbishing of the house, once the site of the former Brighton College of Education which merged with the polytechnic last year.

Mr Tony Greenstein, vice-president of the union, said: "There was no need for the director to move into this house on the site and there was no need for that amount of money to be spent. It has annoyed staff and students."

A union general meeting will be called at the beginning of term. A polytechnic spokesman said this week that the house was in need of redecoration and that the spending had been authorized by the polytechnic council.

Dr Gamble, reader in neuro-anatomy, has been campaigning on Dr Mustafa's behalf. He said he hoped the Iraqi Government's change of heart would produce retrospective justice for Dr Mustafa and others in his position.

South Hill Park

In the article on arts centres last week the estimated total attendance for South Hill Park in 1975 and 300,000, not "between 2,000 and 3,000."

Better deal for Iraqi students

The Iraqi government is to give its postgraduate students abroad a better deal, after protests by British academics about the present system.

The students concerned are those given paid leave by their employers (usually a university or government ministry) to work for a PhD overseas. About 300 of them are in the UK. Doctors and hardware have been caused by the system's rigidity: leave is normally given for three years, and if the PhD is not completed within that period (which may be insufficient for someone to whom English is a second language) it is often impossible to obtain any extension.

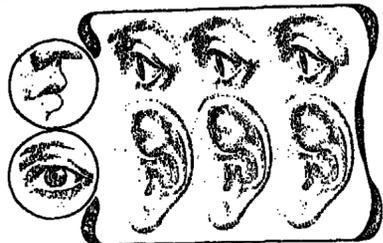
The cultural attaché at the Iraqi Embassy in London said that as a result of representations by students and supervisors his government will be changing the system from next month to allow all Iraqi PhD students a minimum of four years to complete their studies. This rule already applies to those given scholarships by the Ministry of Higher Education.

It denied claims that students who failed to obtain a PhD within three years could be forced to repay the salary they had received.

However, Dr Ghannim Mustafa, who is studying in the department of anatomy at St. Thomas's Hospital Medical School under Dr Gamble, says his contract does contain such a repayment clause. His home university, Basra, stopped his salary in March and he had to raise loans to continue his PhD work.

Dr Gamble, reader in neuro-anatomy, has been campaigning on Dr Mustafa's behalf. He said he hoped the Iraqi Government's change of heart would produce retrospective justice for Dr Mustafa and others in his position.

They succeed by seeing things objectively



Films from Roving Report, the television current affairs programme, will be shown at next week's Ed Tech 77 exhibition. John Crossland, the programme's editor, recounts its development.

By any standards of television, Roving Report is an extraordinary product, and in one respect, unique: it is produced by any organization solely for worldwide distribution every week of the year.

Assembled wholly on film and syndicated widely among foreign television stations (it is not transmitted in Britain), Roving Report has become the world's longest-running documentary programme with a potential audience today of nearly 100 million people.

Roving Report's origins are concerned with the start of commercial television in Britain in the late 1950s. Independent Television News not only supplied the daily national news bulletins to the regional programme companies, but also produced a weekly half-hour show for the network that gave basic pictorial information in an entertaining way on places and people abroad, often from what in those days were the more obscure parts of the world. This programme was Roving Report.

At that time, ITN also syndicated some of its own news coverage to foreign stations, and as part of that service, Roving Report was supplied mainly to English-language stations overseas.

In the 1960s, the programme lost its travelling image and became more concerned with the serious examination of topics of current interest. And under different titles and editors, it continued right up to the introduction of the half-hour "News At Ten" in 1967.

The start of "News At Ten" coincided with the formation of United Press International Television News. The new company combined ITN's syndication business

with UPI Newsfilm's own considerable distribution. Along with the ITN business came Roving Report, which at that time was screened as scheduled programming by only five foreign stations.

A change of ownership also meant a subtle change in editorial policy. For UPI/ITN was not—and is not—a broadcaster. It is an international agency serving broadcasting organizations in many countries with different and even diametrically opposed philosophies. One of the chief requirements for the success of such an agency is the application of a standard of impartiality and balanced presentation that is continuously without blemish.

This does not imply, of course, that Roving Report was not objective under the old ITN aegis. But to retain the confidence of an increasing number of stations in countries with greatly differing social and political systems does impose special responsibilities.

It is one measure of Roving Report's commitment to this standard of impartiality that among the countries making use of the programme today are communist and non-communist, Israeli and Arab, Zambia, Rhodesia and South Africa.

From the beginning, UPI/ITN provided its own international coverage for Roving Report. Today, the programme deals with one, two or three subjects each week, with individual items running between 8 and 25 minutes each. Lead stories are usually concerned with some topic of current international affairs. This year, for example, they have included reports on Rhodesia, Spanish and Cuban elections, Egyptian riots, the background to nuclear safety.

Besides current affairs, Roving Report also finds a place for a variety of features on art, science, religion, sport, and many other subjects.

It is this blend of current reports and non-dated features that many

stations find appealing, especially smaller stations still in the early stages of development of their television services. In such countries, Roving Report fulfils a general educational purpose and does it in a way that is undoubtedly popular with viewers.

The Caribbean Broadcasting Corporation is a relatively new subscriber. A UPI/ITN executive attended a broadcasting conference in Barbados last year was exchanging small talk with the taxi driver who had picked him up from his hotel. The executive asked about the driver's job and whether he worked on a certain evening.

"On my evening," came the reply. "It's the best thing in TV here. In the few months it's been running, I've learnt more from that show than in all the years since I left school."

The educational potential of Roving Report is now being realized in more specific ways by introducing films from past programmes into educational institutions in Britain. This is being organized through Fergus Davidson Associates Ltd the educational film distributors who have produced their own catalogue of some 280 UPI/ITN films.

FDA and UPI/ITN believe that the films form an ideal educational support tool for a wide range of curricula in schools and colleges, and would be especially useful in social studies, geography, history and science.

They are available for hire or direct purchase of film or video cassette. Details from UPI/ITN Corporation, ITN House, 48 Wells Street, London W1P 4PP; Fergus Davidson Associates Ltd, 376 London Road, West Wickham, Surrey CR2 2SU; and the Scottish Council for Educational Technology, Glasgow.

Ed Tech 77 keeps successful formula

The successful formula of presenting educational technology in its widest sense, adopted last year at the first "Ed Tech" exhibition, is to be repeated next week in the same setting at Holland Park School.

The decision not to have a two-year gap is also proof that exhibitors, organizers and sponsors were satisfied the event had struck the right note and is here to stay. Visitors will again have the opportunity of seeing a wide variety of educational software and hardware ranging from posters, slides, filmstrips, films, audio and audio-visual equipment, computers and science teaching equipment.

detected, it is in the number of companies who will be introducing new portable audio equipment for language teaching. Among these are ESL who are showing their new Flexilab series 2 language study cassette recorder, purpose built for education (site 29).

It can be used individually or linked to a console which can cope with any number of students and which can be fully portable or permanently installed, while the recorder may be either plugged into the system or used on their own for private study.

Three recent additions to the Sebiron range of audio teaching systems manufactured by Smiths (Electrical Engineers) Bamber

bridge will also make their public debut at the exhibition (Site 73). They include the PLT individual language trainer and both portable and fixed versions of the Digital AA-Lab audio active language laboratory.

The PLT is self-contained and fully portable and offers essential facilities for audio/active language study and can be used in conjunction with a variety of foreign language courses which use cassette programmes. It has separate master and student cassette tracks with a facility for simultaneous playback of the master programme while the user is recording his response.

New services with an emphasis on economy, speed and efficiency will also be demonstrated. Visitors to ABIS (Site 48) will be able to hear about the Complete Film Economy Plan which the company has developed to produce films for industry, training, and education to specific needs.

Full production services for scriptwriting, musical selection, recording, photography, multilingual commentary series and a large graphics department are all housed under one roof, to help cut down costs.

Another service being demonstrated by Fergus Davidson Associates (Site 7) is a proposed computerized retrieval system for audio-visual information which links telephone, telex and television. The system, although specifically aimed at formal education, is also said to be useful for any training establishment.

Tickets for the Ed Tech 77 exhibition, which will be held from August 23-25 at Holland Park School, Airline Gardens, London W8, are available free from Ed Tech 77, c/o 43 Chelbert Street, London W8.

Patricia Santinelli

How those controversial OU courses are created

Allegations that Open University courses, albeit perhaps a handful, are politically biased, are being subjected to close scrutiny necessary before being dispatched to students have prompted the university to set up an internal inquiry into course production methods, headed by Sir Walter Perry, the vice-chancellor, which is expected to rule later this year.

The university, still smarting from criticisms which have been made about alleged Marxist bias in two courses, "Patterns of Inequality" and "Schooling in Society", maintains that the inquiry is mainly a matter of routine. Unlike the highly critical of course production it could, however, silence the critics who many within the university believe are too fond of pointing out the possible shortcomings of a system which, they claim, is the envy of the world.

Each course, says the university, goes through a complicated and lengthy committee process after being proposed and even after it is in the hands of the students is subject to testing and revision, the techniques of which are under constant review.

When a course proposal is made from within the university it is first vetted by the faculty board composed of the students' representatives in the question of whether sufficient resources will be available. Only if the proposal successfully passes does it go on for consideration by the academic board's courses committee—made up of deans, and in the case of the students' representatives, the overall profile of the programmes already on offer and expected to be on offer in the future to ensure an overlap.

Following the rubber stamping of the proposal by the full academic board, by which time a provisional production date has been set, the course team chairman is named. He has the task of choosing the team members from inside the university and outside in the selection of the BBC producers, currently based at Alexandra Palace.

Finally, the planning board of the university considers the course plan and negotiates a budget with the BBC. The proposal could still be abandoned if it fails to meet all the criteria.

The process is lengthy and detailed but, maintains Mr Jeremy Chapple, the university's chancellor, essentially rigorous. Attitudes to resources have also changed in the seven years of the Open University's life. Once it used to be considered unacceptable to produce a low resource course now this is often the case.

The course team is made up of a "core" of academics drawn from the university, the BBC and from among the regional staff writers. Course material editors from the BBC collaborate in the selection of an educational technologist, design consultant, and course assistant. If necessary, specialist external consultants make up the team.

Dr Barry Jones is team chairman for the Open University's new second-level half credit course "Images and Information". He joined as a physics lecturer in 1974 and soon after was asked to chair the team when the actual proposal, from another academic in the science and technology faculty, was simply contained on three pages of foolscap and had only just received academic board approval.

His first task was to start working out the details of the course, launched for the first time in January, and deciding on the size and scope of the units involved. The course team under selection needed two extra technologists and Dr Jones successfully made a case for two appointments from outside the university. Normally when there are sufficient academics in suitable specialist areas at the university, specialists from outside are not appointed directly to course teams.

The team finally numbered eight including Dr Jones and the course assistant, a junior academic. Four were drawn from the BBC Open University Productions Department, including the series producer with overall responsibility for the television programmes, their style and format.

Once the team starts working together on the writing and assembling of the course units, claims Dr Jones, a "very creative process". During the production of the course material, he and the team were co-opted to the team.

Dr Jones, like other course leaders, put forward a detailed list of resources and finance to accompany the course. The team also had to draw up a half credit course. He explained: "We won approval for 17 programmes and the normal way is now for a half credit course to be an overall plan for the course and the team pressed strongly for the very beginning of its execution a complete revision of the course in its first year, co-operating with the units being used for the first time by students.

Normally the university teams wait two years before re-visiting course material in respect of student testing and feedback. The course team successfully won their case because of the innovatory nature of the programme.

So as the course units have been sent out to students for the first time this year the team has been rewriting and revising the material, a mammoth task which has been completed in time for the presentation.

But Dr Jones maintains it is necessary, the course, which outlines the principles underlying the use, scope and design of image systems, attempts to popularize a subject that has never received similar treatment. He explained: "There were two books to be written on how to write the material, what to include for our type of student. It has been innovative and therefore the 'one page' mode was particularly appropriate.

In fact, despite the two-year period and the weekend "crash" sessions, all course team members worked 48 hour stretches on the material. Students have found some of the units more difficult than others, work load heavier than anticipated. They also find the material more difficult than we intended. One unit is also to be completely rewritten because we feel it is unsatisfactory academically. It is still in the end of November of this year the team, which has gradually reduced on to new university projects, will have finished all the revised units. They will be taken account of students' response through "feedback" blocks and assignments. Tutors, who have supplied feedback on assignments, they have marked and they have administered the course. "From all the feedback we have found consistently that students leave feeling the course tough and hard. Dr Jones, in the future, will be asked whether—and how— he could well with the physical sciences in the science and technology foundation courses, but being allowed to join "Images and Information".

But the popularity of the programme is high. Last year 1,000 students applied for the course and the programme was full in January and has been re-run for the first time.

Dr Jones feels that his choice of method for revising the course material was the most suitable, particularly as the programme was the first of its kind. The university, however, claims the method is expensive.

While seemingly little control is applied by the university before a course proposal is being made, the units being completed, Dr Jones believes that careful selection of course team members is essential.

But Mr Chapple confirmed that part of the university's responsibility of its production of the course is to ensure the academic credibility of course material and to further allow the fears of university's critics.

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Little joy in sight for arts and social studies graduates

Figures have been published in recent weeks giving the first employment destinations for the university and polytechnic graduates of 1976. These have shown that, in spite of a generally deteriorating employment situation, the percentages of graduates still looking for permanent employment at December 31, 1976, were much the same as the corresponding figures 12 months earlier.

Graduates as a whole, therefore, still enjoy a favoured position in competition with those of lower academic attainments. Also in the past few weeks a further 58,000 students have graduated from universities and 14,000 from polytechnics; about half of them have been unloaded on to an employment market which is weaker than at any time in the past 35 years (the rest will be held in some form of further study or training). Although it is far too early to make a final assessment of how these 1977 graduates will fare, it is possible to comment on the way in which the situation is developing.

Perhaps most obvious has been the continuing and increasing weakness of public sector recruitment. Just over 4,000 young graduates (not all of them new graduates) were recruited to permanent Civil Service posts in 1975. The corresponding figure for 1976 was 2,300; of these, 1,300 had joined as executive officers, the grade for which only two A levels are required for direct entry, but just over 40 per cent of all successful candidates were graduates.

In 1977, the total number of executive officer vacancies is likely to be about 1,500 (as against 6,500 in 1975), and even if 50 per cent of the vacancies are graduates, there will still be about 500 fewer jobs for them than last year.

Similar things are happening elsewhere in the public sector. The total of 8,000 graduate direct entrants to public service jobs in 1976 must surely fall substantially this year, probably to something like 5,000 to 6,000. And while most graduates who completed their year certificate training last year succeeded in getting teaching jobs in secondary schools, the same thing seems unlikely to happen this year.

The queue for public sector jobs may therefore be swollen by as many as 1,000 of the more than 8,000 would-be graduates who were 1976 graduates. Many, if not most, of these additional applicants for other jobs will have read arts or social studies where no natural or obvious alternative market exists.

Some can be found jobs in the private sector, where demand has increased somewhat. But it is sheer self-deception, bordering on fantasy, to pretend that "industry" will or can absorb these arts or social studies graduates or, for that matter, graduates in biological sciences, industry and commerce together have in recent years probably

Bernard Holloway looks at the significance of recent trends in the employment of graduates

absorbed rather less than 30 per cent of the total output of universities—up to 14,000 per year. Of those, fewer than 1,000 have not been scientists, technologists, engineers. Less than 5 per cent of men and only 2 per cent of women arts graduates entered "industry" directly last year, in spite of the long-standing myth about graduates being wanted for "management", whatever that may be.

Commerce—including chartered accountancy—employed an additional 8 per cent and 6 per cent respectively. Nor can commerce realistically be expected to increase its take-up of graduates rapidly and substantially.

With public sector job shortages, and within the conventional view of what is a suitable job for a graduate, the prospects for many graduates in social studies, particularly in early improvement, and much the same is true for the life sciences.

In the physical sciences, engineering and technology the picture is different. In spite of the Prime Minister's opinion, there is little evidence of a numerical shortage of engineers in relation to demand. Admittedly most electrical and electronic engineers have found jobs as have mechanical engineers; but civil engineers, dependent as they are on high rates of capital investment in both public and private sector, have been produced in excess of demand.

The same is true to a greater extent of architects and, perhaps most startlingly, of town and country planners. Whereas virtually all 1975 planning graduates found jobs easily in planning, only just over half of 1976 graduates did so, and it seems unlikely that more than a quarter of 1977 graduates will be equally fortunate.

So much for the assertions of those who say that more vocational courses are the answer to our problems. They should speak to the low graduates who found that one quarter of those who had completed Part II of the Law Society's examinations at the beginning of this year could not obtain articleship in a solicitor's office, and were therefore unable to qualify for the work for which they had been vocationally trained.

So much, also, for the polytechnic director who asserted recently in

the national press that the career prospects for polytechnic students are "public excellent" because "the type of degree or other course will ensure this". He needs to note that the percentage of unemployed 1976 polytechnic graduates was substantially higher than that of university graduates—7.6 per cent against 5.5 per cent.

There is a clear inverse relationship in the public sector today between rates of pay and numbers employed. A public sector trade union negotiates improved conditions of service for its members does so at the expense of potential new entrants to the public service. This is true of civil servants, teachers, librarians, civil engineers, police officers, social workers, policemen, road sweepers, university teachers and many other categories.

It is an extraordinary paradox that the Trades Union Congress should be itself concerned about unemployment in general, and the unemployment of young people in particular, while encouraging its member unions to act in a way which increases the problem.

Very recently, it was announced that the College of Air Training (CAT) was to train British Airways pilots. This was a very short notice (at least three 1977 Manchester graduates will now have to find another job). The reported comment of the British Airline Pilots Association (BALPA) was that the move would have come the cancellation because it would improve their negotiating position in the next round of pay claims.

To what extent is the British Medical Association's talk of an oversupply of doctors motivated by similar considerations? Employment for all is too important to be left to the trade unions. While the interests of existing employees, and the protection of their standard of living, are given priority over those of new entrants, the employment prospects for all young people—graduates included—seeking first employment will deteriorate, and the tools which come from the Government and the TUC must be of the most restricted variety.

Also in the category of fantasy is the talk about creating one million new jobs. If we are to earn our living as a nation, it must be through employing fewer people in more highly productive manufacturing or commercial sectors. British Leyland, for example, which will produce 500 new jobs, at a cost of over £60,000 per job—a typical figure for high technology industry—we shall not get one million new jobs that way.

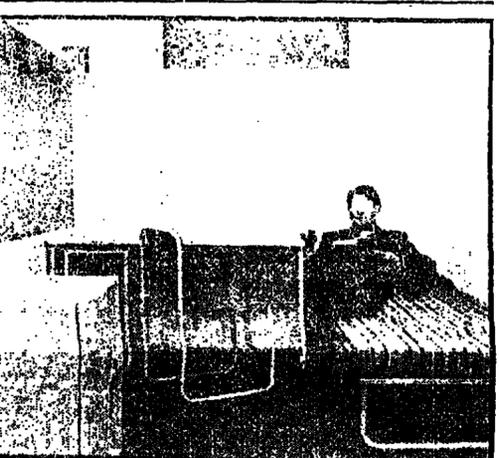
Our future will depend on the success of industry in competing successfully in world markets, so that we may buy the goods and raw materials to stay alive; but unemployment can be cured only by an increase in manpower-intensive projects in service, and particularly in the public sector. Many of these paid out of the public pocket. These are the jobs graduates have entered in the past in large numbers, and are likely to want to continue to enter in future.

The key to the situation remains as it did over a year ago, comprised of three main elements: the Government's policy on public sector salaries for the 1975-76 session; "There is no doubt whatever that, over quite wide ranges of work, people employed in the public sector are now better paid than those in comparable jobs in private manufacturing industry."

"Nothing less than freezing all public sector salaries at this present level for, say, three years would allow the previous salary relativities to be restored. This policy would also have the advantage of allowing somewhat greater recruitment targets for the public sector over the same period."

The sting is in the tail of that quotation. Graduates will survive, even if arts and social studies graduates may now need to exhibit flexibility of a quite exceptional nature in looking for jobs. These we should really be concerned about are the large number of young people with no prospects of a job of any kind.

The author is secretary of Manchester University's Careers and Appointments Service



"Questions of the relevance of academic disciplines have no urgency."

Pre-established harmony behind prison bars

Terry Keefe describes the effects of the growing popularity of education in prisons

It is said that recent criticism of Britain's prisons should have taken so little account of education, since the Open University and certain university extra-mural departments are undoubtedly making an impact upon the day-to-day lives of a small proportion of prisoners. This is not, of course, a new phenomenon, and a recent report drew attention to some of the problems that have arisen (W. Forster: *The Higher Education of Prisoners*, University of Leicester, Vaughan papers in adult education, 21, 1976).

Over the past few months I have had my own first experience of teaching in a local maximum security prison. All of the inmates who gave up their mailbag-sewing or their exercise in order to learn philosophy for two hours each week were involved in Open University courses (two are already graduates), and doubtless they were not a representative cross-section of the prison population.

However, their knowledge across a wide range of subjects, including current affairs and modern science, was impressive. Not only do they evidently watch *The World About Us* rather than *The Brothers* (which is in itself encouraging, as decisions about which television channel to tune into are apparently based on democratic criteria), but they also read quite widely and with obvious relish.

On loosely linking pre-established harmony with the name of Malebranch, for example, I was gently reminded (admittedly by the star pupil) that this was Leibniz's doctrine, and that Malebranch is known for occasionalism.

I was also reminded of a Belfast prisoner who had written a book on the philosophy of the 1975-76 session: "There is no doubt whatever that, over quite wide ranges of work, people employed in the public sector are now better paid than those in comparable jobs in private manufacturing industry."

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lies with the non-believer rather than with the Christian? And class discussions themselves had, inevitably, sometimes to draw fairly heavily upon incidents and situations from prison life.

The dangers inherent in this process are obvious enough and one had occasionally to restrain a perfectly natural tendency on the prisoners' part to complain about their lot, as well as one's own desire to find out more about conditions, or about what such apparently inoffensive and polite philosophers could have done to be put inside.

Yet this proved to be much less of a problem than might have been expected. The disarming frankness with which most prisoners were capable of offering unflattering illustrations from their own prison attitudes or past errors was a remarkable and fruitful feature of one or two of the sessions.

It was heartening that the spirit in which the prisoners approached the difficult and potentially disorienting subject of philosophy was, in general, one of quite admirable open-mindedness and humility.

In fact, I shall miss my weekly ration of arguments in fundamental respects. Whether or not the inmates learn much philosophy, such a course can hardly fail to leave the tutor with a fair amount to muse over. Certainly I shall never forget the inmates' controlled television camera, a bunch of keys on a chain, or even an Alsatian dog through quite the same eyes.

On the other hand, I wryly cherish the memory of the prisoner quite genuinely aggrieved that his crime did not rate a single paragraph in the *News of the World*; and of a notice asking prisoners to cooperate with the library services by returning certain books, some of which were four years overdue!

Yet in addition to helping to break down naive assumptions about prisons, this kind of course can also remind us of some of the fundamentals of the educational process. A prison may well be one of the few remaining establishments where questions of the relevance of particular academic disciplines have no urgency at all.

Paradoxically, I sometimes had the impression of teaching in near-ideal conditions, where students pursue a subject essentially out of interest and are actually happy to be initiated into its delights and complexities.

It was also curiously elating to rediscover that the personal relationships upon which education crucially depends can be established in a more or less genuine way, even if individual's past and other extraneous factors powerless to block the learning channel once the will to learn exists.

All in all, the higher education taking place in prisons may have a general significance extending far beyond the restricted scale of the present arrangements. In this respect as in others, the trail being blazed by the Open University is one of major educational and social importance.

Was the donation of a bag of sugar to a particular fund of any less value because the sugar had itself originally been a gift to the donor? Was the chaplain right to suggest that the burden of proof

The author is lecturer in French at the University of Leicester.

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How not to fill vacancies

The first reaction of many people in universities—perhaps a majority—to the revelations about how at least some academic appointments are made at Cardiff is that it is disgraceful. Their second reaction is that it is quite common and so not very surprising. Out of these two apparently contradictory reactions must be fashioned a sensible attitude between justice and common sense.

The process of appointing staff has two parts: attracting suitable applicants and then choosing between them. The trouble starts when these two parts are confused, as seems to have happened at Cardiff.

Few people would argue that there is any harm in making the trawl for potential applicants for a particular post as wide as possible. Most would agree that it is desirable. That is why most British universities and colleges are so good about advertising jobs openly.

In the United States in contrast the slow market of academic conventions is often still the place where talent is sought and where American colleges have only begun to advertise jobs in recent years because they have been forced to observe affirmative action policies to employ more women and blacks. The criticism in Britain is that sometimes the other way round: that jobs, in particular senior ones, are sometimes advertised as considerations for reasons of propriety or even prestige when a private search for candidates would be just as effective and much cheaper.

It can also be argued that if the trawl should be as wide as possible then the mesh of the net should be as fine as possible, so there is no room for inherent wrong in drawing the attention of possible candidates to a job even encouraging them to apply.

Not yet a woman's world

The drastic reduction in places at the colleges of education which have traditionally provided education as well as training for both young and mature women is a setback to the slow progress which women have been making in the world of higher education.

When it is coupled with the recent Government announcement that the entry requirement for teacher education should be two A levels the cause for concern is even greater. Three times more women than men entered teacher education last year. A level. Many must now turn elsewhere for higher education.

Although the proportion of women in higher education is still growing slowly there are a number of restraints on the increase. The attitude of girls and their teachers to science and technology courses remains conservative. The number of girls taking A levels has risen dramatically since 1965, but the numbers taking science and mathematics has not. The number taking three A levels rather than two has lagged behind, reducing the chance of many more girls entering universities.

The change in attitude must come first from schools and society, but higher education institutions have a contribution to make. The Equal Opportunities Commission is right to suggest that institutions should make efforts in their advertisements to encourage women. However, it will be some time before women are queuing up to fill empty science and engineering places. What can be done in the short term to help women who 10 years ago might have been trained to be teachers?

Sir,—I hesitate to enter into correspondence on issues raised last week in your columns touching on the Francis Report on certain appointments in this college for the reason that I consider such matters best dealt with through existing internal channels. I do so however because both you on your first page and your correspondents appear to argue a case on a foundation of fact which a reading of the report would indicate is just incorrect.

The statement on which all else is made to turn is "the fact that the principal invited an applicant to nominate two external assessors". The facts as reported in the Francis report are that in a letter of January 17, 1977, "the principal invited the applicant in question to submit an application, mentioned that two assessors would be appointed from outside the university, and stated the names of any people with whom you have been in contact on your various visits of the last few years and who therefore know of your work in this sort of field".

The Francis report also states that "I wondered if you had let me know before he had discussed the question of assessors with the chairman of the steering committee of the science centre and they had then agreed that their situation should be helpful to the principal would be to ask if there were any people in the field of science education who knew of (the applicant's) work" abroad.

Treating adults like adults

Sir,—I have been waiting for someone else to reply to Professor T. E. Davenny's timely and pointed article (THES, July 15). To jump together for administrative convenience a university extra-mural class of adults studying Socrates and another devoted to flower arranging as part of an activity called adult education can of course be justified in the sense that one man or woman is really educated and the other both discuss Socrates and arrange a bowl of flowers at one and the same time. A wife or husband who can do both is surely an achievement at either a miners' gala or a Buckingham Palace garden party.

But in the present craze for administrative tidiness and economy we really have to lay it on the line, as the current phrase goes, that university extra-mural teaching is an extension of university work.

Now the Americans in their wisdom usually do call the university departments that deal with this kind of adult education "extension departments". Indeed, in an American university, any adult can attend classes in the extension department and count them towards a degree. In Britain universities consistently refused to recognize the existence of an extra-mural adult population that really wanted to study for a degree in their spare time.

Consequently, the Open University had to be invented to overcome that somewhat senseless prejudice against spare-time adult students. But the students who now receive their degrees from the Open University are precisely the ones who used to enrol in the university extra-mural classes. And let us not make no mistake about it, these enrol now in university extra-mural classes, either because they do not get a degree or because, having got a degree, they now wish to continue their general education, or students of university, college, or undertaking university work to university standard, and taught by university staff.

I have every sympathy for Professor Davenny's alarm for the future of extra-mural teaching and extra-mural students. Such work, as he rightly says, ought to be regarded as falling within the concept of traditional education to be supplied at nil or low cost. The country can ill afford to lose its core of committed and serious adult students undertaking university

LETTERS TO THE EDITOR

Cardiff states its case

Local control of universities

Sir,—There seems to be a lot of confusion about the local control of universities. Not content with inflicting an academic profession a broad, tortured and anomalous definition which bears hardly on the reality, the spokesmen now propose that universities should come under the authority control (the "middle and the good deal more" social engineering) of the State.

One target of the conservatives, as always, is the Open University which is particularly vulnerable because of its history (of labour because of its very openness to the general public through radio and television. Another target, and one which perhaps deserves the label of "open university", is the Polytechnic of North London, the Grunwick of higher education. A new target, or rather one that has not been shot at for some time, is the Centre for Contemporary Cultural Studies at Birmingham University, a centre surely of home-grown rather than "foreign" radicalism. These attacked have defended themselves with unbecoming vigour around an old word, Marxism. Unfortunately Marxism is an over-loaded word that has been hijacked by the polemicists. Politicians who have probably never read a word of Marx beyond *The Communist Manifesto* are accused of being "Marxists". Radical academics who would quibble at the kind of mind-crunching exegesis of Marx practised by the polemicists are charged with being "Marxists". In return they are often happy to wear this inaccurate and inappropriate label like a medal won in some bloodless ideological war. For the polemicists and politicians committed to the principle that the precise meaning of words should be maintained it is all very confusing.

So before any sensible discussion can take place of the very important issues of respect for authority

Marxism in universities: the need for tolerance

—scholarly and political—and of the balance between academic liberty and licence raised by the present controversy the word Marxism must be rescued from the polemicists. No one surely is suggesting that Marxism, in a current of intellectual thought should be, or could be, banished from the modern university. In this guise it has enriched history, economics, sociology and a host of other academic disciplines.

It is hardly an exaggeration to say that the twentieth century experience could not be comprehended without reference to and understanding of Marxism. But this contention has been seriously challenged (unless the new right is challenging it now). No one imagined that a Maurice Dobbs left hand had entered the fabric of academic life.

Three things have happened in the last 20 years to upset this apparent harmony of discordant ideologies. First, the Marx-hood left has changed radically in character. Until the late 1950s Marxism in Britain was a middle-aged doctrine infected by intellectual artifice and political fatalism. It was little practical for a Marxist to wait for the unlikely eruption of the proletariat. They had little opportunity—and perhaps as time went on little inclination—to practice what they preached. The all-Marxist order perhaps but order nevertheless.

In the 1960s the image and therefore the appeal of Marxism was transformed. Youth appeared to replace age, dogma the Co-op suits, pessimism and libertarian heresies the former stifling totalitarian orthodoxy. Marxism no longer seemed to be concerned with order determination but with the status of the individual. This made Marxism both more attractive to potential supporters and more threatening to those who rejected its philosophy and feared its political direction.

Revolutionary dry theoretical fog possibility but an immediate and direct obligation. Higher education institutions were often soft targets for such direct action, because of their relative isolation and because of their legitimate inhibitions about

the suppression of thought—and appropriate ones in the eyes of their assailants because of the growing importance of technology and advanced knowledge in maintaining the fabric of the state. Secondly, the political and social experience of the last 20 years has sharpened ideological conflict and made explicit conflicts of values that in the cusier and more comfortable fifties had remained implicit. In the 1960s optimistic social democrats and liberal Tories were forced to revise their opinions. By the end of the decade of perhaps the most explosive economic growth known in history it was clear that growth was not enough to ensure social progress: in the 1970s it soon became apparent that we could no longer expect even to enjoy similar economic growth. The Butskellite and Timsuiste centre crumbled.

The left looked for more radical solutions, hence the growing interest in Marxism again. In reaction the right began to repudiate its uneasy acceptance of the social democratic state. Universities could hardly expect to remain untouched by this polarization of national sentiment.



Robin Blackburn: an early victim of political dissent

hancement of the non-university sector were apparently accomplished. Underneath the surface the intellectual, and perhaps just as important, the social, cohesiveness of higher education was undermined. New subjects and new students meant that there were far fewer shared values within the academic community.

Some would argue also that the Robbins expansion led to increasing tension between the still conservative shell of higher education (in particular the universities) and the far from conservative intellectual currents that this expansion inevitably brought. This tension was not only between the still conservative and liberal Tories were forced to revise their opinions. By the end of the decade of perhaps the most explosive economic growth known in history it was clear that growth was not enough to ensure social progress: in the 1970s it soon became apparent that we could no longer expect even to enjoy similar economic growth. The Butskellite and Timsuiste centre crumbled.

The left looked for more radical solutions, hence the growing interest in Marxism again. In reaction the right began to repudiate its uneasy acceptance of the social democratic state. Universities could hardly expect to remain untouched by this polarization of national sentiment.

The third, and most relevant, reason was the changing character of higher education itself. On the surface not much changed. A very successful expansion of the universities and an equally successful one

which at once increases the influence—and the interest—of its political paymasters and erodes its ability to impose internal discipline by means of a cohesive academic tradition.

The fact that such dissent is present has a largely Marxist manifestation increases the tension because it raises important philosophical questions about the quality of truth. The further fact that such dissent is no longer always expressed in abstract and polite terms within well known if unwritten rules of academic conduct but sometimes crudely and occasionally even violently in wilful disregard of such rules raises the pressure still further.

The dissenters face a similar dilemma so, that confronting the authorities. Twenty or more years ago they were able to argue that universities and colleges could be regarded as neutral territory insulated to some extent from the political rigours of the outside world.

Today after the rapid expansion in the 1960s and early 1970s of professional education often of a highly instrumental character rather than the more traditional academic education it has become more difficult to use this argument with the same conviction. So dissenters have found that the instrumental character of their educational commitments and their institutional loyalties has increased.

But it is probably a mistake to place too much emphasis on the instrumental character of contemporary intellectual dissent. The growth of dissent is as much a result of the growing diversity of higher education and its consequent erosion of the academic tradition. It would have happened without Marx. In the past 10 years many have remarked on the phenomenon of "academic drift" whereby institutions aspire to the conditions and status of other institutions higher in the hierarchy of academic esteem. Much less remarked on, but perhaps more important is the contrary phenomenon, the increasingly central character of academic life in the same period. The present intellectual incoherence of Marxism is a symptom as much as a cause of this inevitable tendency.

Peter Scott

Can we join tool-making and literacy in a third culture?

In the aftermath of the Prime Minister's speech last autumn at Ruskin College, Oxford, there has been a considerable amount of discussion of ways in which manufacturing industry and education can better face up to each other, much of which has been very helpful. One point, though inevitably in a rather superficial way.

It is true that there has been in the past few years a revival of more conservative forms of thought in the world, not all concerned with how to use graduates. Where a British company has been hiring for a decade, its German equivalent has probably been doing the same for 50 years.

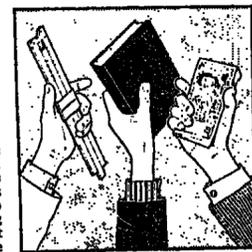
Besides, not all university and polytechnic departments know how to put together courses which suit the types of job involved. It is not enough simply to teach young people the basics of the job. They must be given the opportunity to apply their knowledge in a laboratory, in a workshop, in a government office, making machine tools, giving financial advice, or running a room full of typists?

started to produce monetary, lettered, toolmakers, we British took a most eccentric step by inventing, or at least re-inventing, the professions as the appropriate pattern for behaviour for all middle-class groups.

The original professions were broadly self-governing groups, the doctors, lawyers, and clerics from medieval days, people who stressed their position in the community in terms of giving advice and exercising social responsibility. They were small town, lettered individuals who sat with the squire. Conduct was looked after by a group of peers. Each group claimed exclusive rights to give certain types of advice for a fee. The special position of each was supported by the existence of its own book of knowledge, its "science" to which the group claimed special and immediate access.

These were the "learned professions" of the middle ages. They were also sometimes known as the "free professions", so stressing that most members did not work for others, rather for themselves or for fellow professionals. The British engineers were wrong to have gone in for the small-town game of professional pecking orders, essentially because their work is not that of the service-contracting type of the doctors and the lawyers. Most engineers are a type of manager.

As they came more and more to work in factories, their performance could not sensibly be assessed against an overt stance of giving advice and showing social responsibility to the immediate community. Rather, their role was to aim for efficiency and commercial viability.



Education and Industry

Contrary to my argument is the fact that the toolmaker has only set up his high table, consistently and in large numbers, in the last hundred years or so. And, such is the grasp of the scribbler on forming the history of civilisations, that Leonardo da Vinci, for 20 years military engineer to the Duke of Milan, is almost the only toolmaker whose name appears in our general history books before about 1750, before the age of people like Thomas Edison, the steam engine man.

The "applied science" idea is as monstrous a way to describe tool-making as "technology" each is exclusively an English-language notion. In fact, cooks and sculptors use the knowledge of natural science, as much as engineers do. Toolmaking could never sensibly be described as science, because scientists are distinctive in their practical knowledge; engineers produce artifacts.

Mike Fores

The author is a member of the Government economic service, but all views expressed are personal.

Letters for publication should be sent by Tuesday morning at the latest. They should be as short as possible and the editor reserves the right to cut or amend them if necessary.

Polytechnics continued

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Overseas

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Youth culture: can the elite face up to the challenge?

C. P. Snow's Two Cultures is now old hat, but the dualistic model he used may still be useful in analysing academe today if we redraw the boundaries and redefine the oppositions. One opposition I would suggest is the polarity being established at modern universities between an elite and a youth culture.

Overseas continued

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students should not be taken as representative of all student views. Seen in the above light, the case for a comprehensive student evaluation of staff teaching services is powerful indeed. By means of a questionnaire response, every student—this is vitally important in large classes—would have a chance anonymously to express a view on a wide variety of issues relating to each course, should he or she wish. Topics could range from administrative details, to more fundamental issues. The results derived from such a questionnaire would be of value not only to promotions committees, but also to the individual staff member and to heads of departments in placing staff. And a well-structured assessment scheme of this nature applied to all courses would provide a file of information which "rising" students could benefit considerably from when deciding on course options.

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